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A new species of *Draconarius* Ovtchinnikov, 1999 (Araneae, Agelenidae) from northeastern Pakistan

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Abstract

A new species of agelenid spiders, *Draconarius nathiagalicus* **sp. nov.**, is described and illustrated on the basis of two male specimens collected in Nathia Gali, northeastern Pakistan. This is the fourth species of the genus reported from this country, all belonging to the *venustus* species-group.

Key Words

Coelotinae, spiders, *venustus* species-group

Introduction

Draconarius Ovtchinnikov, 1999 is one of the largest genera within Agelenidae, currently comprising 271 species distributed from Central Asia to Japan in east and Thailand in south, with their highest diversity in China (WSC 2021). Most of the species have relatively small distribution ranges and are known only from their terra typica or a few nearby localities. Up to now, three species have been described from Pakistan: *D. naranensis* Ovtchinnikov, 2005, *D. latellai* Marusik & Ballarin, 2011 and *D. pakistanicus* Ovtchinnikov, 2005 (Ovtchinnikov and Inayatullah 2005; Marusik and Ballarin 2011). In this paper, one more *Draconarius* species is described on the basis of two male specimens collected in Nathia Gali, northeastern Pakistan. The new species belongs to *venustus* species-group, which is primarily distributed in Central Asia, Tibet and surrounding regions (Li et al. 2019).

Material and methods

The holotype specimen was photographed using a Canon EOS 7D camera, attached to an Olympus SZX16 stereomicroscope at the Zoological Museum of the University of Turku. Digital images were montaged using CombineZP. Lengths of leg segments were measured on the dorsal side and listed as: total length (femur, patella, tibia, metatarsus, tarsus). Terminology follows Marusik and Ballarin (2011). Studied material are preserved in 75% ethanol and deposited in the Muséum d'histoire naturelle, Genève, Switzerland (MHNG). Abbreviations: Eyes: ALE – anterior lateral eye, AME – anterior median eye, PLE – posterior lateral eye, PME – posterior median eye. Spination: d – dorsal, Fe – femur, Pa – patella, pl – prolateral, rl – retrolateral, Ti – tibia, Mt – metatarsus, Ta – tarsus, v – ventral.

Taxonomy

Family Agelenidae C. L. Koch, 1837
Subfamily Coelotinae F.O.P.–Cambridge, 1893

Genus *Draconarius* Ovtchinnikov, 1999

Type species. *Draconarius venustus* Ovtchinnikov, 1999, by original designation.

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***Draconarius nathiagalicus* sp. nov.**

http://zoobank.org/D06CD658-D305-43D8-AE2F-4FCE6114B19B

Figs 1A–D, 2A–E, 3

Type material. ***Holotype*** ♂ and 1♂ ***paratype*** (MHNG), Pakistan: Khyber Pakhtunkhwa: Abbottabad District, Nathia Gali, 2600 m, 25–27.8.2001 (W. Heinz).

Etymology. The specific epithet refers to the type locality of the species.

Diagnosis. The new species is most similar to the type of the genus, *D. venustus* (from Tajikistan) in having an extremely long embolus (*Em*) and similar structure of the conductor. The two species can be diagnosed by the following differences: 1) the shape of the prolateral extension (*Pes*) of dorsal portion of the conductor (more prominent and with a distinct anterior outgrowth in the new species (Fig. 2E), *vs.* less bulging and with an almost blunt anterior margin in *D. venustus*; (Ovtchinnikov 1999: fig. 24), 2) the shape of the median extension (*Meh*) of ventral portion of the conductor thinner and longer in the new species, *vs.* shorter and with wider base in *D. venustus*, 3) the shape of the tegular (=median) apophysis (*Ta*) (with a wider base and shorter anterior arm and more prominent, triangular posterior arm in the new species, *vs.* with a narrow base and longer anterior arm, and posterior arm with an almost blunt edge in *D. venustus*), and 4) the shape of the patellar apophysis (*Pa*) (longer and more prominent in the new species). Females unknown.

Description. Male (holotype). Habitus as in Fig. 1A–C. Total length 8.15. Carapace 3.65 long, 1.70 (pars cephalica) and 2.50 (pars thoracica) wide. Eye sizes: ALE: 0.20, AME: 0.12, PLE: 0.20, PME: 0.15. Carapace, sternum, maxillae and labium yellowish brown. Carapace with several dark lines radiating from fovea toward margins. Sternum with six dark spots. Chelicera reddish, with 3 retromarginal (middle one largest) and 2 promarginal teeth of subequal lenght, posteriorly with a distinct retrolateral bulge (Fig. 1C). Legs colored as carapace, with fade darker spots on femora. Abdomen greyish and covered with short setae, dorsally with fade chevron patterns and ventrally with scattered and irregular darker markings. Spinnerets light yellowish brown (Fig. 1D). Measurements of leg segments: I: 10.78 (2.87, 1.26, 2.45, 2.55, 1.65), II: 9.50 (2.61, 1.22, 1.89, 2.32, 1.46), III: 8.93 (2.32, 1.02, 1.78, 2.40, 1.41), IV: 11.86 (3.16, 1.21, 2.48, 3.30, 1.71). Spination: I: Fe 2d, 1pl, Ti 5v, Mt 6v; II: Fe 2d, 1pl, Ti 4v, Mt 6v; III: Fe 5d, Pa 1d, 1pl, 1rl, Ti 1d, 2pl, 5v, 2rl, Mt 4d, 2pl, 2rl, 6v, Ta 2pl, 1rl; IV: Fe 4d, Pa 1d, 1pl, 1rl, Ti 1d, 2pl, 6v, 2rl, Mt 4d, 3pl, 2rl, 6v, Ta 2pl, 1rl.

Palp as in Fig. 2A–D; femur relatively short (Fig. 2A, C); patella as long as wide, with relatively large, horn-shaped retrolateral apophysis (*Pa*; Fig. 2E); tibia with keel-shaped retrolateral apophysis; cymbium large, with a distinct retrolateral furrow (*Cf*; Fig. 2A); tegular (=median) apophysis (*Ta*) large, with a wide base and two triangular extensions, the anterior one with a curved apex; conductor very large and consisted of a hyaline ventral portion having a median (*Meh*) and a prolateral (*Peh*) extension, and a more sclerotized dorsal portion with a triangular retrolateral (*Res*) and a rounded prolateral (*Pes*)

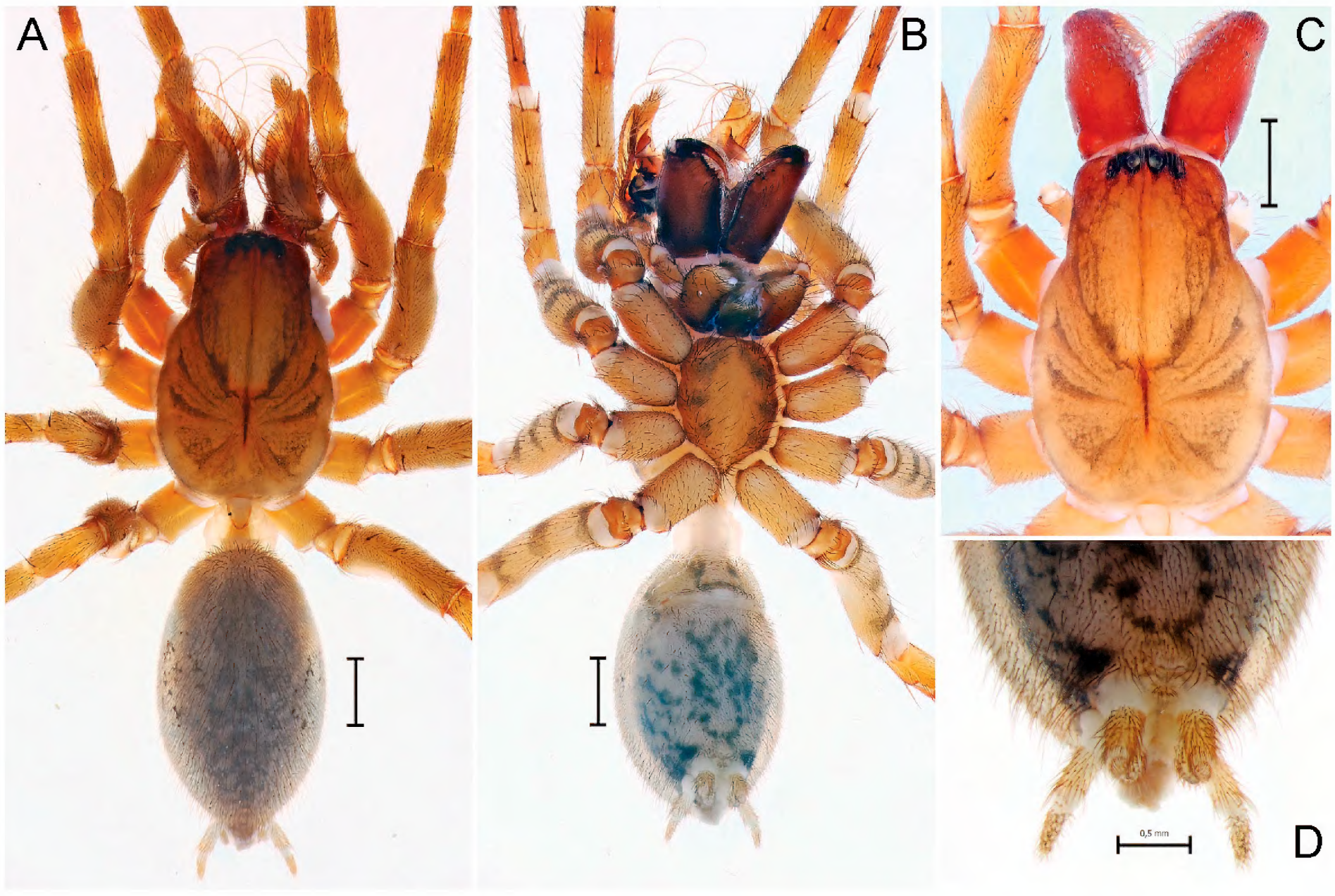

Figure 1. *Draconarius nathiagalicus* sp. nov., holotype male. **A, B.** habitus, dorsal and ventral views; **C.** Prosoma, dorsal view; **D.** Spinnerets, ventral view. Scale bars: 1.0 mm, unless otherwise indicated.

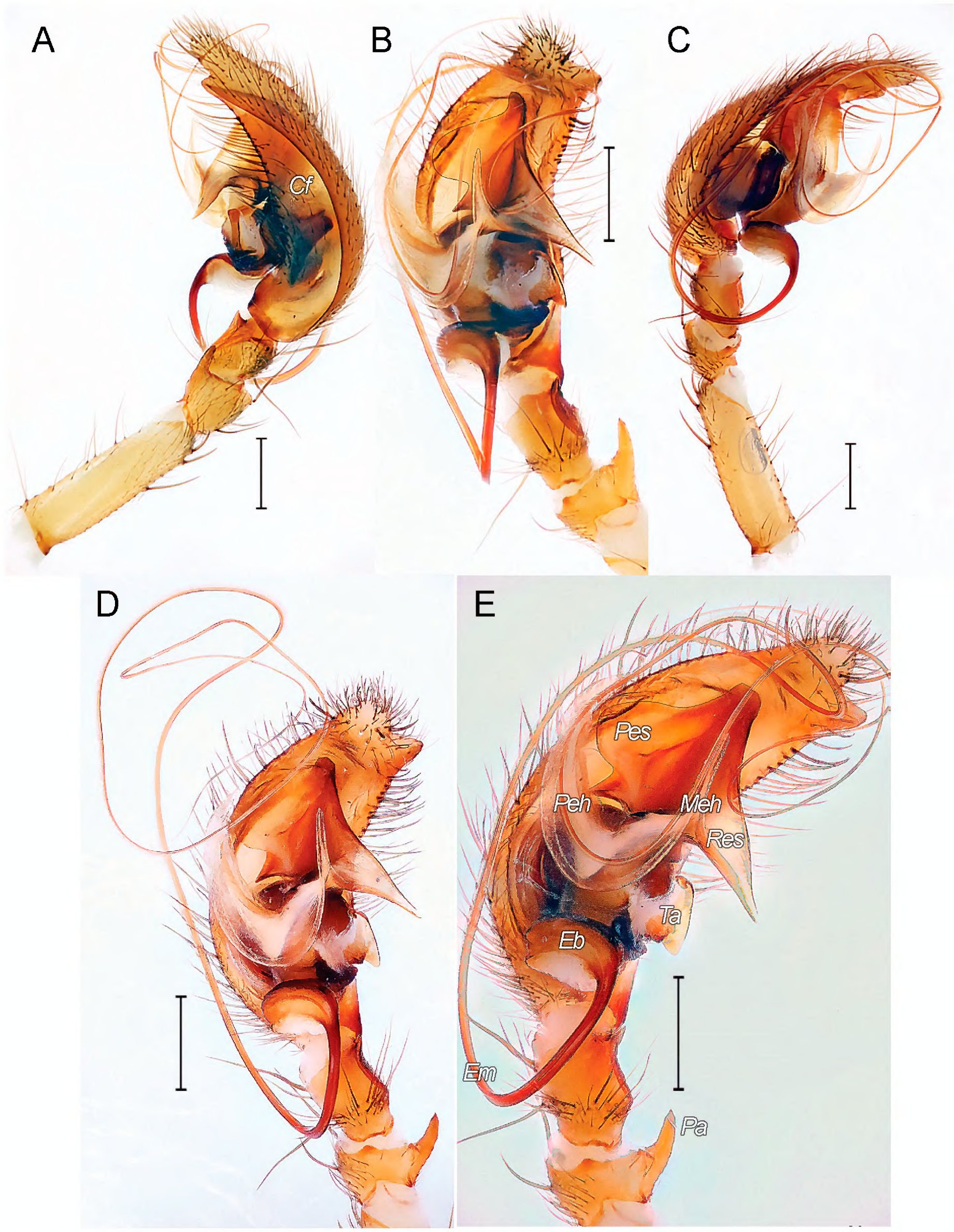

Figure 2. *Draconarius nathiagalicus* sp. nov., palp of holotype male. **A, C.** Retrolateral and prolateral views; **B, D.** Ventral view; **E.** Ventro-prolateral view. Scale bars: 0.5 mm. Abbreviations: *Cf* – cymbial furrow, *Eb* – embolus' base, *Em* – embolus, *Meh*, *Peh* – median and prolateral extensions of hyaline portion of conductor, *Pa* – patellar apophysis, *Pes*, *Res* – prolateral and retrolateral extensions of sclerotized portion of conductor, *Ta* – tegular (=median) apophysis.

extension; embolus base (*Eb*) located at an almost 6 o'clock position, leading to a very long and thin embolus (*Em*) making several coils in different planes (Fig. 2D).

Female. Unknown.

Comments. *Draconarius naranensis*, described from Naran region in northeastern Pakistan, is known only by female (Ovtchinnikov and Inayatullah 2005). It is possible that the males described here are conspecific with

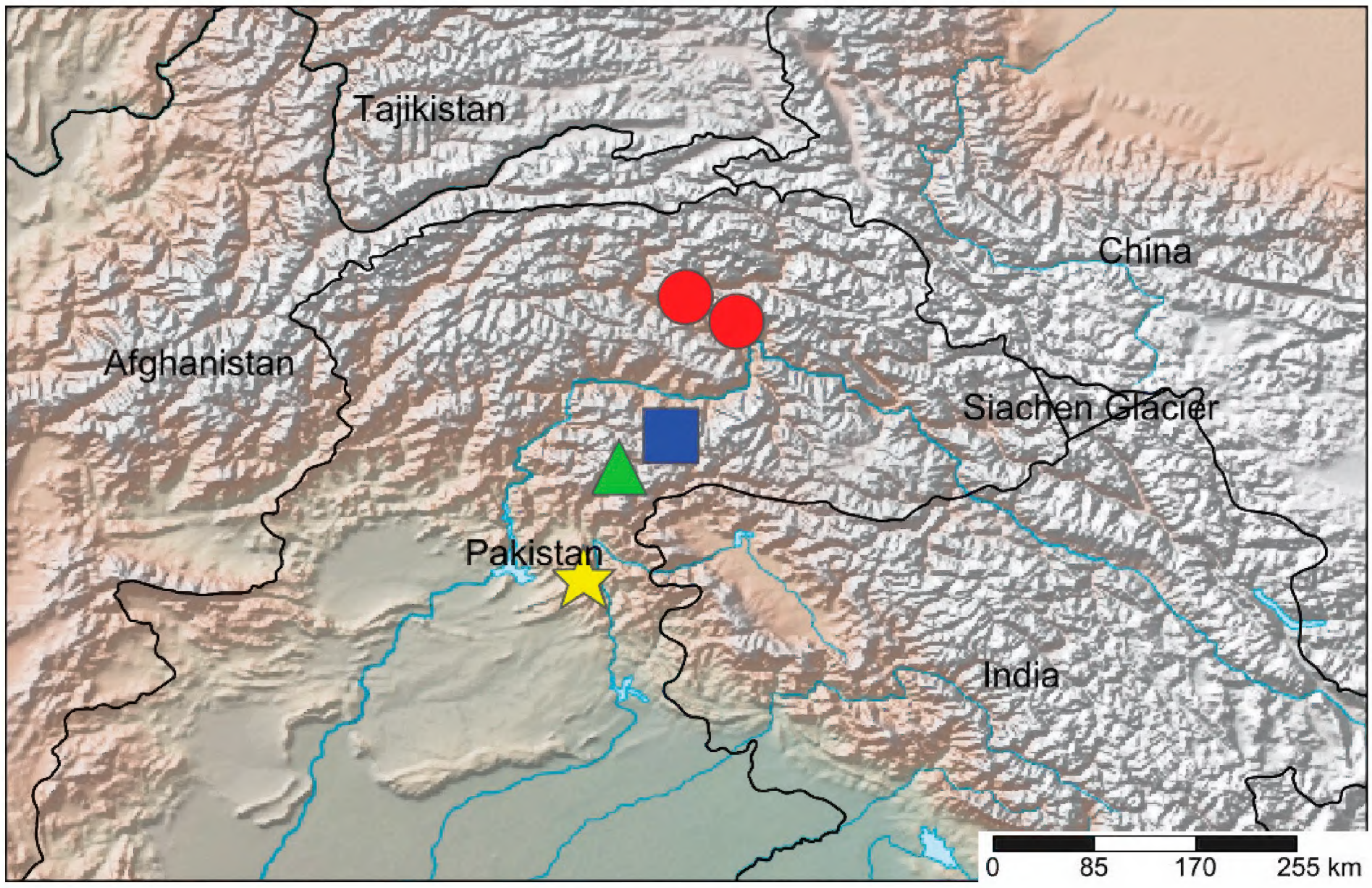

Figure 3. Distribution map of *Draconarius* species known from Pakistan. Star: *D. nathiagalicus* sp. nov.; circles: *D. latellai*; square: *D. pakistanicus*; triangle: *D. naranensis*.

this species, considering that there are only about 100 km of aerial distance between the collection localities. However, as noted by Wang et al. (2010) who recorded 60 species of *Draconarius* in Yunnan Province of China, species of this genus could reach a very high local diversity, and therefore, it is also possible that the two populations represent separate species, especially considering the mountainous landscape of the type locality and the fact that the other two currently known species from this region were also collected from relatively close localities (Fig. 3). The distinct status of these two species can only be confirmed when both sexes of either species are collected together.

Distribution. Known only from the type locality in Nathia Gali, northeastern Pakistan (Fig. 3).

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